



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/824,645

04/15/2004

Jinlian Hu

P69665US0

7691

136 7590 08/31/2007
JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER

BROOKS, KRISTIE LATRICE

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

08/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,645	Applicant(s) HU ET AL.	
	Examiner Kristie L. Brooks	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species: main monomers. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect in claim 2, a single main monomer from the group consisting of N-isopropyl acrylamide, N-methylacrylamide, N-ethylacrylamide, N-n-butylacrylamide, N-n-propylacrylamide, N-n-propylmethacrylamide, N-isopropylmethacrylamide, N-ethylmethacrylamide, N-acryloylpiperidine, N-methacroylpiperidine, N-pyrrolidylmethylacrylamide, N-piperidylmethylacrylamide, and N,N'-diethylacrylamide, and N-isopropylacrylamide for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

2. This application contains claims directed to the following patentably distinct species: functional monomers. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Art Unit: 1616

Applicant is required under 35 U.S.C. 121 to elect in claim 4, a functional monomer from acrylamide, allyl alcohol, n-(isobutoxymethyl)acrylamide, N-(isobutoxymethyl)methacrylamide, m and p-vinylbenzyl alcohol, cyanomethyl methacrylate, 2-poly(ethyleneoxy)ethyl acrylate, methacryloyloxypolyglycerol, glyceryl methacrylate, 2-hydroxyethyl acrylate, 2-hydroxypropyl acrylate, 2-hydroxypropyl methacrylate, N-vinyl-2-pyrrolidone, p-aminostyrene, aconitic acid, acrylic acid, methacrylic acid, fumaric acid, itaconic acid, maleic acid, 2-methacryloyloxyethylsulfuric acid, sodium salt, pyridinium 2-methacryloyloxyethylsulfate, 3-acrylamidopropane-1-sulfonic acid, potassium salt, p-styrenesulfonic acid, sodium salt, 3-methacryloyloxypropane-1-sulfonic acid, sodium salt, 2-acrylamido-2-methylpropanesulfonic acid, methacrylic acid, lithium methacrylate, 2-methacryloyloxyethyl 1 sulfonic acid ammonium p-styrenesulfonate, sodium o and p-styrenesulfonate, N-(3-acrylamidopropyl)ammonium methacrylate, N-(2-methacryloyloxyethyl)-N,N,N-trimethylammonium iodide, N-(2-methacryloyloxyethyl)-N,N,N-trimethylammonium p-toluenesulfonate, 1,2-dimethyl-5-vinylpyridinium methosulfate, N-(2-methacryloyloxyethyl)-N,N,N-trimethylammonium bromide, N,N-trimethylammonium fluoride, N-vinylbenzyl-N,N,N-trimethylammonium chloride, 3-methyl-1-vinylimidazolium methosulfate, N-(3-methacrylamidopropyl)-N-benzyl-N,N-dimethylammonium chloride, and N-(3-methacrylamidopropyl)-N,N,N-trimethylammonium chloride for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

3. This application contains claims directed to the following patentably distinct species: cross-linking agents. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect in claim 6, a single cross-linking agent from 2-(diethylamino)ethyl acrylate, 2-(dimethylamino)ethyl acrylate, 2-(dimethylamino)ethyl methacrylate, and 2-(diethylamino)ethyl methacrylate, and N,N'-methylenebisacrylamide (BisAAm) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

4. This application contains claims directed to the following patentably distinct species: binding agents. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect in claim 11, a single binding agent from polyglycols, polycarboxylic acids, polycarboxylates, poly(lactone)s polyols, polyamides, polyamines, polysulfonic acids, polysulfonates, gamma-aminopropyltrialkoxysilanes, gamma-isocyanatopropyltriethoxysilane, vinyl-trialkoxysilanes, glycidoxypropyltrialkoxysilanes and ureidopropyltrialkoxysilanes for

Art Unit: 1616

prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

5. This application contains claims directed to the following patentably distinct species: In claim 13, Applicant is required to elect a phenyl compound from a) phenyl alcohols, b) phenyl acids, and c) phenyl esters. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

If Applicant elects a) phenyl alcohols, Applicant is further required under 35 U.S.C. 121 to elect in claim 14, a single phenyl alcohol from benzyl alcohol, 2-hydroxybenzyl alcohol, 2,3-dimethoxybenzyl alcohol, t-butylhydroquinone, pyrocatechol, and 2-amino-4-nitrophenol for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

If Applicant elects b) phenyl acids, Applicant is further required under 35 U.S.C. 121 to elect in claim 15, a single phenyl acid from gallic acid, benzoic acid, salicylic acid and ferulic acid for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

If Applicant elects c) phenyl esters, Applicant is further required under 35 U.S.C. 121 to elect in claim 16, a single phenyl ester from benzyl cinnamate, monoterpene

Art Unit: 1616

derivatives including geranic acid, sterols including cholesterol, and ergosterol, steroids including testosterone, and androstenedione, flavonoids including naringenin, isosakuranetin, eriodictyol, and genistein, steryl esters including amyirin cinnamate, 2,7-naphthalenediol, oxyquinoline, and cyclodextrins and their derivatives thereof, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the

Art Unit: 1616

election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie L. Brooks whose telephone number is (571) 272-9072. The examiner can normally be reached on M-F 8:30am-6:00pm Est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KB

Paul J. Landau
Primary Examiner
Art 1616